City of Greenville
2014 Drinking Water Quality Report
City of Greenville
(PWS ID# 0760004)

Spanish (Espanol)
Este informe contiene information muy importante sobre la calidad de su agua potable. Por favor lea este infore o comuniquese con alguien que pueda traducer la informacion.

Is my water safe?
Our Quality Assurance personnel collected approximately 700 individual samples from locations throughout the city during 2014. These samples were submitted to and tested by the Mississippi State Department of Health. This report is a snapshot of last year's water quality. Included are details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. We are committed to providing you with this information because informed customers are our best allies.

Do I need to take special precautions?
Some people may be more vulnerable to contaminants in drinking water than the general population. Immune-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Water Drinking Hotline (800-426-4791).

Where does my water come from?
Our water comes from twelve wells located throughout the city. All of these wells draw water from the Cockfield Aquifer at a depth of approximately 600 feet. All are interconnected through approximately 250 miles of large diameter distribution pipes. The distribution piping includes cast iron, ductile iron, galvanized steel, and Polyvinylchloride. We chlorinate and fluoridate the ground water prior to its injection into the distribution system at all well sites. At this time no other treatment is required under the Safe Drinking Water Act.

How much water is produced by the water system daily?
The combined total production of the water system varies with demand. The theoretical maximum production capacity is 22,320,000 gallons per day. A typical daily production is 7,500,000 gallons per day.

Why is our water brown?
The cockfield aquifer includes strata of prehistoric plant material that the water must travel through to reach our wells. These strata release tannins into the water in the form of dissolved solids. These solids are bound to the water molecules. This makes the color extremely difficult to remove.

Can the color be filtered out?
Customers can filter some of the color out with whole-house filters. These filters utilize activated carbon, zeolites, and/or other naturally occurring minerals. The City has investigated the feasibility of utilizing a variety of technologies to remove the color from the water. The capital cost of installing treatment systems at each well range from $2.0 - $2.7 million per well.

Source water assessment and its availability:
Our source water assessment has been completed by the Mississippi State Department of Health. The report is available for review at the Office of the Public Works Director.

Why are there contaminants in my drinking water?

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency=s Safe Drinking water Hotline (800-426-4791). The sources of drinking water (both tap and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity:

Microbial contaminants, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife; inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban stormwater runoff, industrial, or domestic wastewater discharges, oil and gas production, mining, or farming; pesticides and herbicides, which may come from a variety of sources such as agricultural, urban stormwater runoff, and residential uses; organic Chemical Contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems; and radioactive contaminants, which can be naturally occurring or be the results of oil and gas production and mining activities. In order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

How can I get involved?
Our city council conducts its meetings on the first and third Tuesday of each month at 4:00 p.m. We encourage all citizens who have any questions or concerns regarding their water service or other public services that the city provides to meet with us. We ask that customers who have questions concerning their water bills or regarding disruptions in service to please first contact the City of Greenville Water Department at 378-1580. For other technical concerns as to water quality utilize the telephone numbers listed below. You may also e-mail any comments or questions to us at bjones@www.greenville.ms.us

How Does Our Water Compare to Others?
For 2014 the City of Greenville Water System scored a 4.7 out of 5.0 on its Annual Sanitary Survey conducted by the Mississippi Department of Health.

Other information:
To comply with the "Regulation Governing Flouridation of Community Water Supplies", the City of Greenville is required to report certain results pertaining to fluoridation of our water system. The number of months in the previous calendar year that average fluoride sample results were within optimal range of 0.7 – 1.3 ppm was 11. The percentage of fluoride samples collected in the previous calendar year that was within the optimal range of 0.7 – 1.3 ppm was 80%. For general information about the City of Greenville, you can view our home page on the internet at http://www.greenvillems.org. Or you may want additional information about your drinking water. You may contact our certified waterworks operators listed below or you may prefer to log on to the Internet and obtain specific information about your system and its compliance history at the following address: http://www.msdh.state.ms.us/watersupply/index.htm Information including current and past boil water notices, compliance and reporting violations, and other information pertaining to your water supply including "Why, When, and How to Boil Your Drinking Water" and "Flooding and Safe Drinking Water" may be obtained.

Additional Information for Lead
If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. City of Greenville is responsible for providing high quality drinking water, but cannot control the variety of materials used in home plumbing components, primarily found in buildings constructed before 1986. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead. You can also insist that your plumber use only Lead Free fixtures, pipes, and solder.

Your water supply had a notification violation for 2014 for mailing the 2013 Water Quality Report out after the deadline of July 1, 2014. Ours was mailed out on August 1, 2014.

FOR MORE INFORMATION PLEASE CONTACT:

Milton Kearney // 340 Main Street // Greenville, MS 38701 // 662-378-1699 // 662-378-1508(fax) // mkearney@greenvillems.org
Brad Jones // 340 Main Street // Greenville, MS 38701 // 662-378-1650 // 662-378-1615(fax) // bjones@greenvillems.org
The City of Greenville Public Works Department maintains a presence on www.facebook.com.

Water Quality Data Table

Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Your Water	Range Low	Range High	Sample Date	Violation	Typical Source
Disinfectants & Disinfection By-Products								
(There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.)								
Haloacetic Acids (HAA5) (ppb)	NA	60	Average 14.0	12	15	2014	No	By-product of drinking water chlorination
TTHMs [Total Trihalomethanes] (ppb)	NA	80	Average 47.22	30.1	48.4	2014	No	By-product of drinking water disinfection
Chlorine(CL2) (ppm)	4.0	4.0	Average 0.20	0.06	0.79	2014	No	Chlorine is classified as a contaminant but is added to the water for disinfection purposes.
Inorganic Contaminants								
Antimony (ppb)	6	6	<0.5	NA		2014	No	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder; test addition.
Arsenic (ppm)	0	10	0.0008	NA		2013	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium (ppm)	2	2	0.0098	NA		2013	No	Erosion of natural deposits
Cadmium (ppb)	5	5	0.5	NA		2013	No	Corrosion of galvanized pipes, Erosion of natural deposits
Chromium (ppm)	100	100	0.0042	NA		2013	No	Erosion of natural deposits
Fluoride (ppm)	4	4	1.4	NA		2013	No	Erosion of natural deposits,
Mercury [Inorganic] (ppb)	2	2	<0.5	NA		2013	No	Erosion of natural deposits
Nitrate [measured as Nitrogen] (ppm)	10	10	ND	NA		2014	No	Erosion of natural deposits
Nitrite [measured as Nitrogen] (ppm)	1	1	ND	NA		2014	No	Erosion of natural deposits
Selenium (ppm)	50	50	0.0034	NA		2014	No	Erosion of natural deposits

Contaminants	MCLG	AL	Your Water	Sample Date	# Samples Exceeding AL	Exceeds AL	Typical Source
Inorganic Contaminants							
Copper - action level at consumer taps (ppm)	1.3	1.3	0.3	2013	0	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead - action level at consumer taps (ppm)	0	15.0	1.0	2013	0	No	Corrosion of household plumbing systems; Erosion of natural deposits

UNDETECTED CONTAMINANTS

The following contaminants were monitored for, but not detected, in your water.

Contaminants	MCLG Or MRDLG	MCL Or MRDL	Your Water	Violation	Typical Source
Inorganic Contaminants					
Asbestos (MFL)	7	7	ND	No	Decay of asbestos cement water mains; Erosion of natural deposits

MICROBIOLOGICAL CONTAMINANTS					
Total Coliform* (positive samples per month)	0	1	3	Yes	Naturally present in the environment.
Fecal Indicator – E. Coli at the source (positive samples)	0	0	0	No	Human and animal fecal waste.

* Total Coliform are bacteria which are naturally present in the environment and are used as an indicator that other, potentially harmful bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems. Routine sampling resulted in 3 out of 40 samples for November 2014 testing positive for total coliform when only one is allowed per month. Usually, coliforms are a sign that there could be a problem with the treatment or distribution system(pipes). Whever we detect coliform bacteria in any sample, we do follow-up testing to see if other bacteria of greater concern, such as fecal coliform or E. Coli, are present. We did not find any of these bacteria in our subsequent testing, and further testing shows that this problem has been resolved. As we elected to use a triggered response to any positive coliform bacteria tests, we tested all the production wells in service at the time of the positive tests. Test results from the water wells showed no bacteria present.

Unit Descriptions

Term	Definition
Ppm	ppm: parts per million, or milligrams per liter (mg/L)
Ppb	ppb: parts per billion, or micrograms per liter (μg/L)
MFL	MFL: million fibers per liter, used to measure asbestos concentration
NA	NA: not applicable
ND	ND: Not detected
NR	NR: Monitoring not required, but recommended.

Important Drinking Water Definitions

Term	Definition
MCLG	MCLG: Maximum Contaminant Level Goal: The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
MCL	MCL: Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
TT	TT: Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
AL	AL: Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
Variances and Exemptions	Variances and Exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions.
MRDLG	MRDLG: Maximum residual disinfection level goal. The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
MRDL	MRDL: Maximum residual disinfectant level. The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
MNR	MNR: Monitored Not Regulated
MPL	MPL: State Assigned Maximum Permissible Level

TIPS FOR CONSERVING WATER AT HOME

- **Turn off the Tap!** Just by turning off the tap while brushing your teeth twice a day can save up to 8 gallons of water per day.
- **Shower Power:** A five minute shower uses about 10 gallons of water compared to a full tub, which requires at least 60 gallons of water.
- **Fix the leaks!** A leaky toilet wastes 200 gallons of water per day. To check, put a drop of food coloring in the tank of your toilet. Wait 30 minutes. If the bowl is colored, you have a leak.
- **Install EPA's Water Sense aerators on all your faucets and showerheads.** "Low-flow" means it uses less than 2.5 gallons/minute.
- **Use your dishwasher and clothes washer only for full loads.** Also avoid the permanent press cycle of your clothes washer, which uses 5 gallons more than the other cycles.
- **Put plastic bottles or a float booster in your toilet tank.** To save 8 to 10 gallons per plush, buy a float booster or an inexpensive "tank bank." If you prefer to recycle, put an inch of gravel in a plastic water bottle, fill the bottle with water and replace the cap. Then put the bottle in the tank away from the flapper. Just make sure the tank holds at least 3 gallons of water, the amount required for a proper flush.
- **Keep a pitcher of drinking water in the fridge.** Do not run water from the faucet every time you want to get a drink.
- **Mulch trees and plants in your landscape.** A 2"- 4" layer of mulch will slow evaporation, discourage weeds and help your plants retain moisture.
- **Water wisely.** Water your lawn only when it needs it. When you water your lawn, water early in the morning and water deeply.
- **Use efficient watering systems.** Pop-up sprinkler systems, soaker hoses set on timers and drip systems all put water close to the plants' roots.
- **Aerate your lawn.** Punch holes in your grass about 6" apart so that water will reach the roots rather than run off the surface of the turf.
- **Xeriscape.** Replace lawn with native plants, landscaping and low-maintenance plants that require less water.
- **Add organic matter to your soil.** Improving your soil will decrease rain runoff, increase water absorption and improve water retention.
- **Install a rain barrel.** It's free water! Rain water is also better for your plants, as it contains no additives like fluoride.
- **Use a broom to clean your sidewalks and driveway.** Use a hose to wash your driveway or sidewalk only when it is extremely dirty, and sweep it first.

— WATER DEPARTMENT NEWS —

- **Paymentus:** Online payments will be coming soon, customer will have to ability to pay their bills online and over the phone using their credit/debit cards and electronic checks.
- **Possible leaks:** If a customer has a potential leak, please contact us immediately so we can help them figure out where it is coming from.
- **Clues to look for if you may have a leak:** Extremely wet areas around the house, excessive water at the meter, etc....
- **Due dates:** All bills are due within 30 day from the bill date on your bill. Your services will be terminated after the disconnect date if payment has not been received. All bills are printed and hand delivered to the post office, they are mailed from there. We make every effort to get your bills out in a timely manner, failure to receive a water bill will not stop the interruption of your services.

T0001 ********AUTO**3-DIGIT 392
Ms. St Bd of Health W
OR CURRENT OCCUPANT
PO Box 1700
Jackson, MS 39215-1700

City of Greenville
Water Department
340 Main Street
Greenville, MS 38701-4039

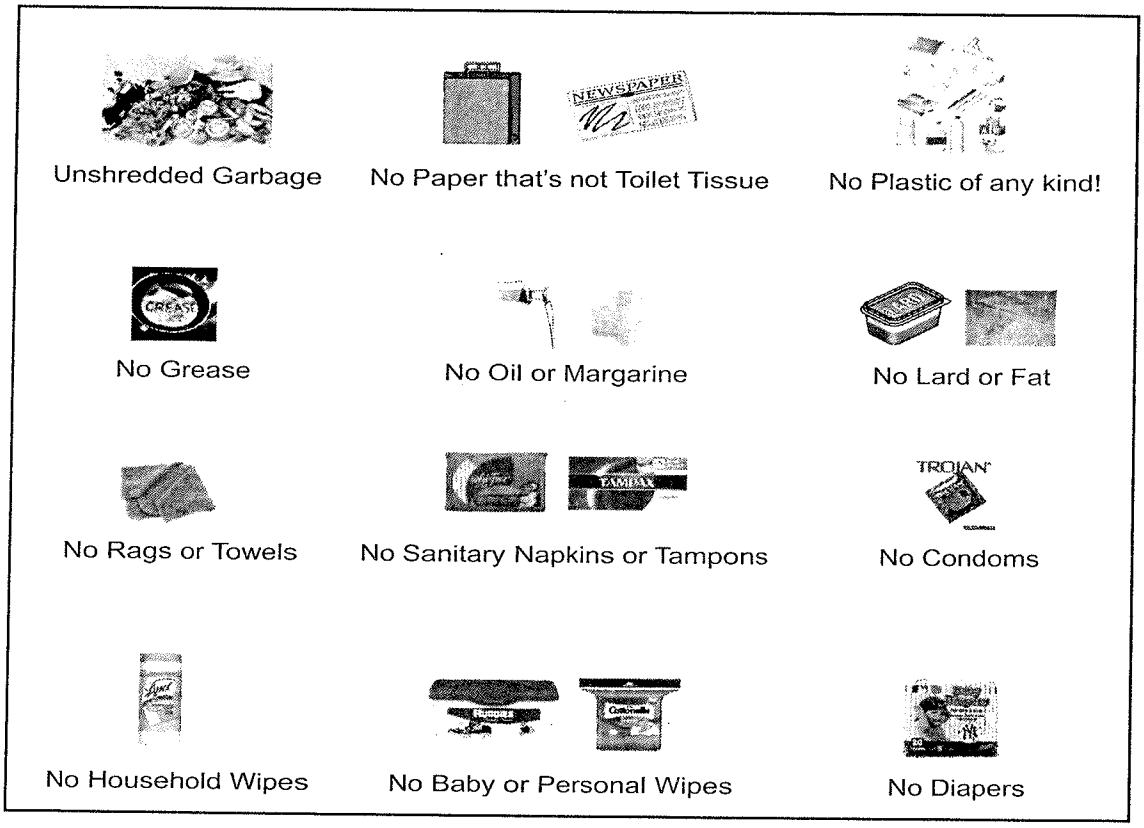
2015 JUL -6 AM 8:12
WATER SUPPLY

PRSRT STD
U.S. POSTAGE
PAID
MAILED FROM
ZIP CODE 39205
PERMIT NO. 627

FOREIGN OBJECTS AND FATS, OIL, AND GREASE IN THE SEWERS

It is unlawful to flush or drain certain things into the public sewer system. According to the City of Greenville Code of Ordinances, **Sections 7-143** and **7-144** no un-shredded garbage, no paper, no rags, no fats, oil or grease, no feminine sanitary products, no condoms, no plastics of any kind, no "flushable wipes". Additionally, any garbage disposal with greater than ¾ horsepower must be approved by the City of Greenville prior to installation.

Penalties may be levied according to **Section 7-152** for causing a public sewer to become obstructed or damaged due to these substances being improperly discharged. "The person or persons responsible for such discharge shall be billed and shall pay for the expense incurred by the city in cleaning out, repairing or rebuilding the sewer."



— REMINDER —
The City of Greenville does not unclog private lateral sewers.

The City of Greenville does not unclog private lateral sewers. The graphic shows what a private lateral sewer is. The City will respond to your call, but only to determine if the city main sewer is clogged. If the City main sewer is flowing properly, they will notify you. You will then need to have a licensed plumber unclog your private sewer.

Typical House Sewer Connection